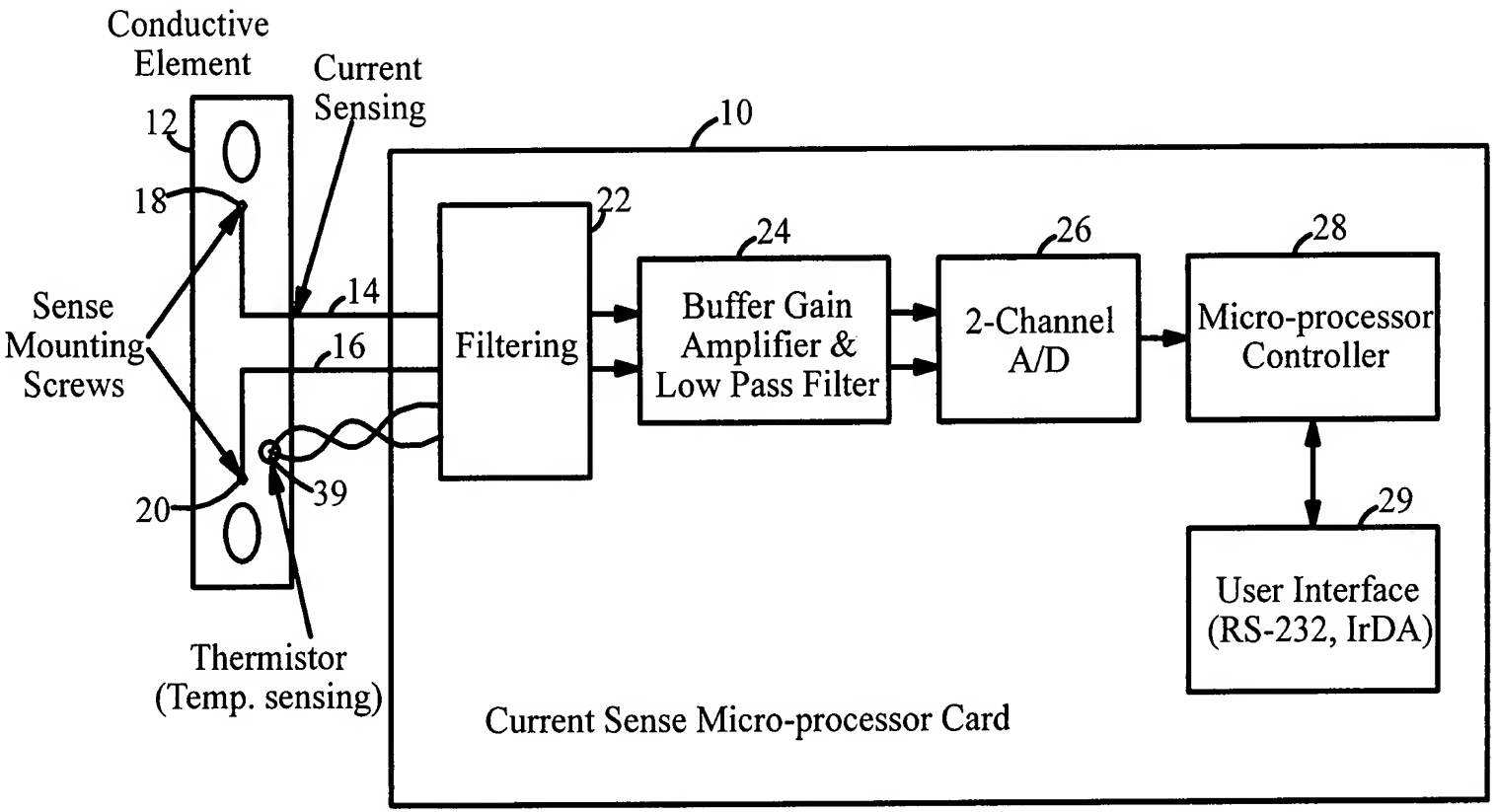
Conductive Element
Current Sensing
12
10
18
22
24
26
28
Sense Mounting Screws
14
16
Filtering
Buffer Gain Amplifier & Low Pass Filter
2-Channel A/D
Micro-processor Controller
20
39
29
User Interface (RS-232, IrDA)
Thermistor (Temp. sensing)
Current Sense Micro-processor Card

FIG. 1

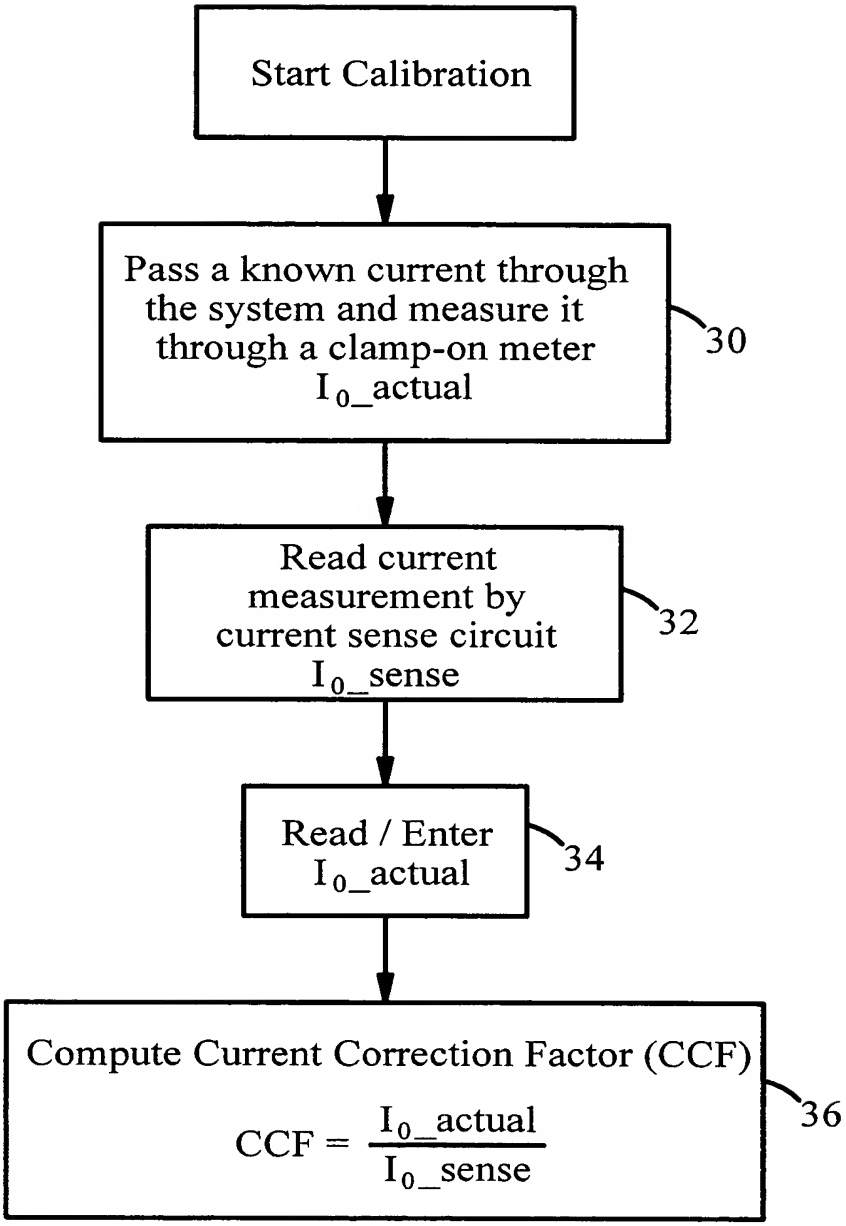
Start Calibration
Pass a known current through the system and measure it through a clamp-on meter I_{0_actual}
30
Read current measurement by current sense circuit I_{0_sense}
32
Read / Enter I_{0_actual}
34
Compute Current Correction Factor (CCF)
$CCF = \frac{I_{0_actual}}{I_{0_sense}}$
36

FIG. 2

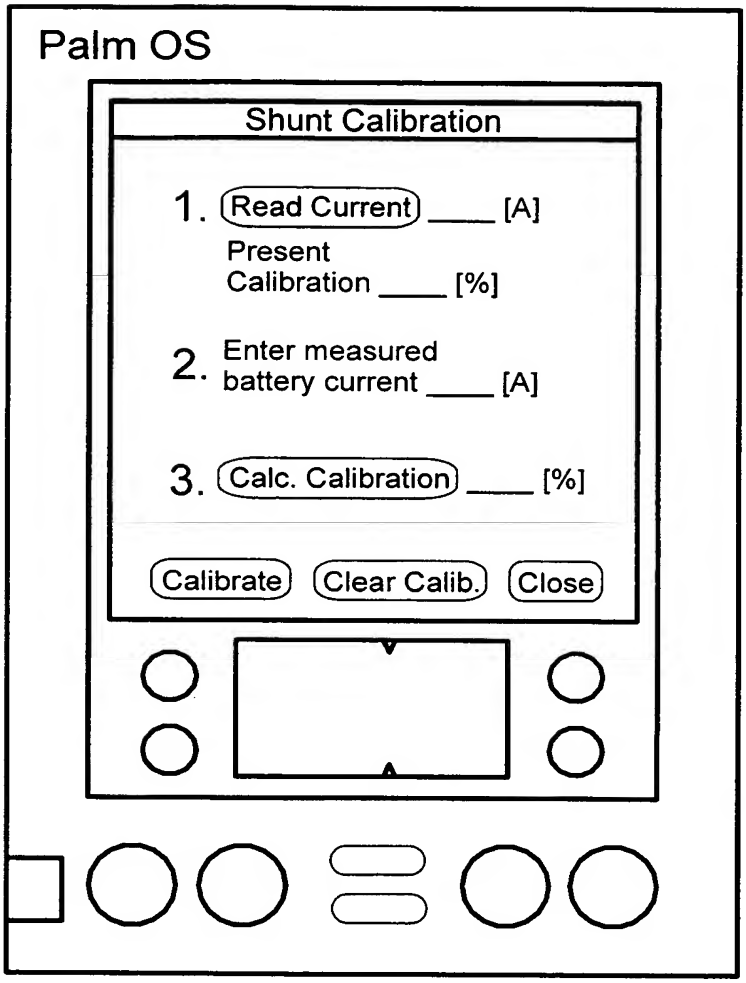
Palm OS
Shunt Calibration
1. Read Current ____ [A]
Present
Calibration ____ [%]
2. Enter measured
battery current ____ [A]
3. Calc. Calibration ____ [%]
Calibrate
Clear Calib.
Close

FIG. 3

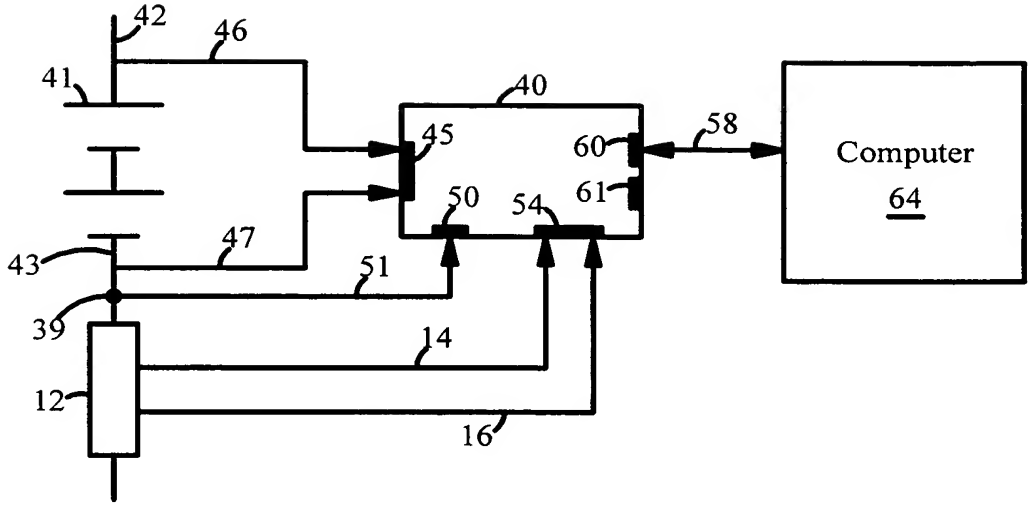
42
46
41
40
45
60
58
Computer
64
50
54
61
47
43
51
39
14
12
16

FIG. 4

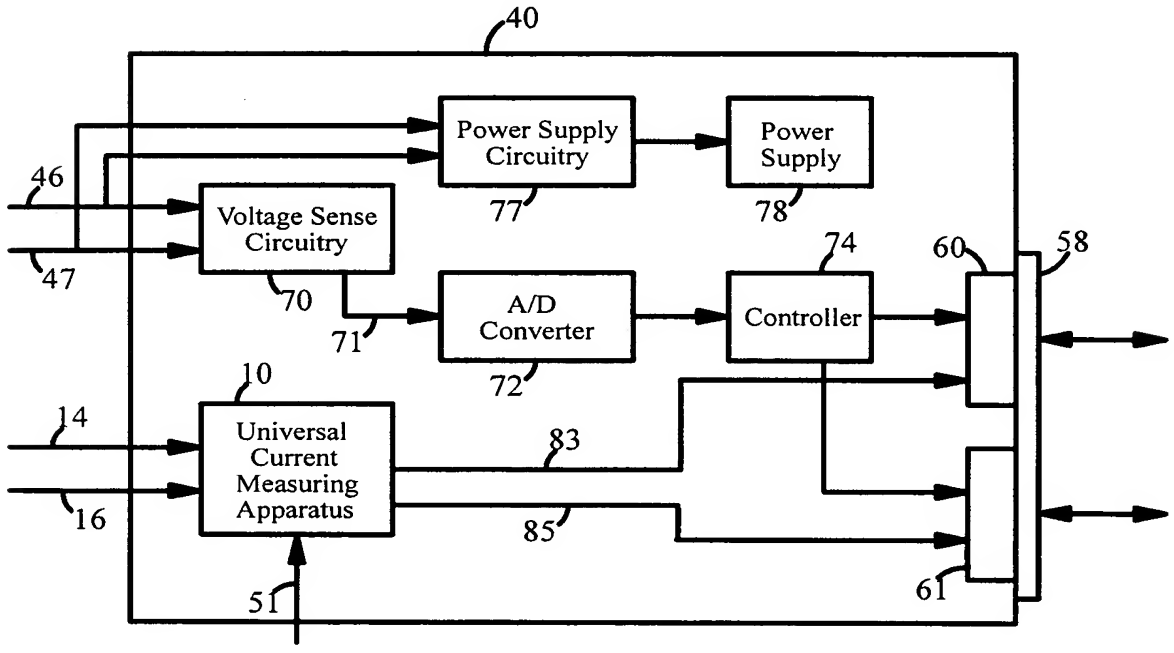
40
Power Supply Circuitry
Power Supply
46
Voltage Sense Circuitry
77
78
74
60
58
47
70
A/D Converter
Controller
71
72
10
14
Universal Current Measuring Apparatus
83
16
85
51
61

FIG. 5